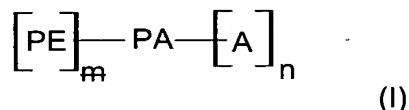


In the Specification

Please amend the specification at [0007] beginning on page 3 as follows:

[0007] The present invention is directed to a polymeric dispersant that is a condensation product of a polyester and a polyamine wherein the free primary or secondary amine groups are converted to amides with a free carboxylic acid group by reaction with an anhydride. The structure of the polymer may be represented by structure I as follows:

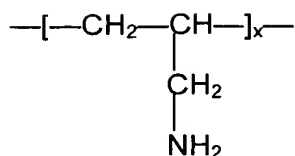


wherein:

PE is a linear or branched polyester homo- or co-polymer with a molecular weight between 500-20,000, preferably 800-5,000, and wherein ~~m is the number of polyester moieties directly linked to PA and m =1-100, preferably 2-50~~ the degree of polymerization m is in the range of 1-100;

PA is ~~derived from a polyamine~~ selected from the group consisting of:

- a. a polyalkylpolyamine wherein the alkyl is a C<sub>2</sub> - C<sub>10</sub> alkyl selected from the group consisting of diethylene triamine, triethylenetetramine, tetraethylenepentamine, dipropylenetriamine, tripropylenetetramine, tetrapropylenepentamine, pentaethylenehexamine, pentapropylenehexamine, bis(hexamethylene)triamine, N,N'-bis(3-aminopropyl)-ethylenedimine, tris(aminoethyl)amine, hexaethyleneheptamine, hexapropyleneheptamine, spermidine, and spermine;
- b. a linear or branched polyalkylene imine selected from the group consisting of polyethyleneimine with a molecular weight up to 50,000, linear and branched polypropyleneimine with a molecular weight of up to 50,000,
- c. polyallylamine;

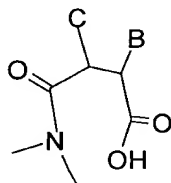


wherein  $x = 10 - 1,000$ ; and

d. a cycloaliphatic amine with more than two amine functional groups per molecule, selected from the group consisting of hydrogenated polyformaldehyde and aniline adduct, piperazinyldiethylenetriamine, piperazinyldiethylenediamine, piperazinyldiethyltriethylenetetraamine, piperazinyldiethyltetraethylenepentamine and hydrogenated diaminopyrimidine, and like compounds;

e. a mixture of the polymines defined in a), b) c) and d) above;

A is a moiety formed from the reaction of a 5 or 6 member ring anhydride with the free primary or secondary amines resulting from the condensation reaction of the polyester and the polyamine, an amic acid with the structure:



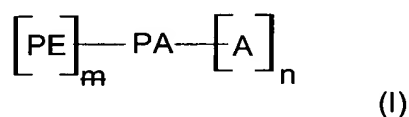
wherein B, C= H,  $C_1 - C_{20}$  alkyl or alkenyl or B and C together form a double bond, a cyclic aliphatic or aromatic group selected from the group consisting of benzyl, carboxyl substituted benzyl, cyclohexyl and cyclohexenyl, alkyl substituted cyclohexyl and cyclohexenyl, wherein alkyl is  $C_1 - C_{20}$ , and n is the number of A moieties directly linked to PA and  $n = 2 - 100$ , preferably 2 - 50.

The anhydrides useful in the present invention include preferably maleic anhydride, succinic anhydride, phthalic anhydride, tetrahydrophthalic anhydride, methyltetrahydrophthalic anhydride, hexahydrophthalic anhydride, methyl

hexahydrophthalic anhydride, trimellitic anhydride, alkenyl and alkyl succinic anhydride wherein the alkenyl or alkyl is C<sub>1</sub> - C<sub>20</sub> alkenyl or alkyl.

Page 6:

**[0010]** The present invention is directed to a polymeric dispersant that is a condensation product of a polyester and a polyamine wherein the free primary or secondary amine groups are converted to amide groups with an anhydride leaving free carboxylic acid groups. The polymer may be expressed by structure I:

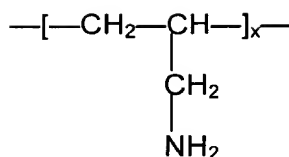


wherein:

PE is a linear or branched polyester homo- or co-polymer with a molecular weight between 500-20,000, preferably 800-5,000, and wherein ~~m is the number of polyester moieties directly linked to PA and m = 1-100, preferably 2-50~~ the degree of polymerization m is in the range of 1-100;

PA is ~~derived from a polyamine~~ selected from the group consisting of:

- a. a polyalkylpolyamine wherein the alkyl is C<sub>2</sub> - C<sub>10</sub> alkyl selected from the group consisting of diethylene triamine, triethylenetetramine, tetraethylenepentamine, dipropylenetriamine, tripropylenetetramine, tetrapropylenepentamine, pentaethylenhexamine, bis(hexamethylene)triamine, pentapropylenehexamine, N,N'-bis(3-aminopropyl)-ethylenedimine, tris(aminoethyl)amine, hexaethyleneheptamine, hexapropyleneheptamine, spermidine and spermine;
- b. a linear or branched polyalkylene imine selected from the group consisting of polyethyleneimine with a molecular weight up to 50,000, linear and branched polypropyleneimine with a molecular weight of up to 50,000;
- c. polyallylamine

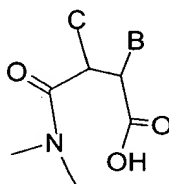


wherein  $x = 10 - 1,000$ ;

d. a cycloaliphatic amine with more than two amine functional groups per molecule, selected from the group consisting of hydrogenated polyformaldehyde and aniline adduct, piperazinylethyldiethylenetriamine, piperazinylethylethylenediamine, piperazinylethyltriethylenetetraamine, piperazinylethyltetraethylenepentamine and hydrogenated diaminopyrimidine, and like compounds; and

e. a mixture of the polyamines defines in a), b), c) and d);

A is a moiety formed from the reaction of a 5 or 6 member ring anhydride with the free primary or secondary amines resulting from the condensation reaction of the polyester and the polyamine, an amic acid with the structure:



wherein B, C= H,  $C_1 - C_{20}$  alkyl or alkenyl or B and C together form a double bond, a cyclic aliphatic or aromatic group selected from the group consisting of benzyl, carboxyl substituted benzyl, cyclohexyl and cyclohexenyl, alkyl substituted cyclohexyl and cyclohexenyl, wherein alkyl is  $C_1 - C_{20}$  alkyl, and n is the number of A moieties directly linked to PA and  $n = 2 - 100$ , preferably  $n = 2 - 50$ .

The anhydrides useful in the present invention include preferably maleic anhydride, succinic anhydride, phthalic anhydride, tetrahydrophthalic anhydride,

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methylnaphthalene, tetrahydrophthalic anhydride, hexahydrophthalic anhydride, methyl  
hexahydrophthalic anhydride, trimellitic anhydride, alkenyl and alkyl succinic  
anhydride wherein the alkenyl or alkyl moiety is C<sub>1</sub> - C<sub>20</sub> alkenyl or alkyl.